

ADDITIONAL NOTES ON THE ERIOCAULACEAE. XCV

Harold N. Moldenke

*PAEPALANTHUS POLYCLADUS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 54: 459. 1983.

Emended synonymy: *Paepalanthus polyclados* Alv. Silv., *Fl. Mont.* 1: pl. 123. 1928.

*PAEPALANTHUS POLYTRICHOIDES* Kunth

Additional bibliography: Mold., *Phytologia* 54: 452 & 459. 1983.

The *Schultes & Cabrera* 19129 & 19185 previously cited by me as representing *P. polytrichoides*, actually prove to be *P. pauperimus* Herzog.

Additional citations: VENEZUELA: Amazonas: Steyermark, Maas, Field, & Redmond 123630 (Lc). Bolivar: W. W. Thomas 2513 (N). BRAZIL: Amapá: Egler 47239 (W--2435318). Amazônas: A. Janssen 458 (Ld). Para: Daly, Callejas, Silva, Taylor, Rosário, & Santos 1064 (Ld); Davidse, Rosa, Rosário, & Silva 17871 (Ld, N); Martinelli 6913 [R. B. Herb. 202833] (Ld); Plowman, Rosa, & Rosário 9627 (Ld, N, W--2967826); Prance, Pennington, & Murça Pires 1282 (W--2514753); Rosa & Santos 1881 (N, N, N).

*PAEPALANTHUS POLYTRICHOIDES* var. *DENSUS* Mold.

Additional bibliography: Mold., *Phytologia* 33: 56--57. 1976; Øllgaard & Balslev, Rep. Bot. Inst. Univ. Aarhus 4: 97. 1980; Mold., *Phytol. Mem.* 2: 110, 129, & 617. 1980.

It seems most probable to me that this taxon should be raised to specific rank. Recent collectors have found it forming firm cushions in wet places on grass paramos with large sloping bog toward the lakes, up to 3 m. tall scrub in protected places, at 3350--3450 m. altitude, flowering in September.

Additional citations: COLOMBIA: Cundinamarca: Cleef 3577 (W--2850661); Cleef & Jaramillo-Mejía 50 (W--2850665); Cuatrecasas & Jaramillo 25737 (W--2342297--isotype). ECUADOR: Loja: Øllgaard & Balslev 9717 (Ac, E--2773078, Ld, N, N).

*PAEPALANTHUS POLYTRICHOIDES* var. *GLABER* Mold.

Synonymy: *Paepalanthus polytrichoides* var. *glabra* Mold., *Phytologia* 54: 243, in syn. 1983.

Additional bibliography: Mold., *Phytologia* 42: 31. 1979; Mold., *Phytol. Mem.* 2: 110, 117, 122, 157, & 617. 1980; Mold., *Phytologia* 54: 235, 237, & 243. 1983.

Recent collectors refer to this plant as an herb, 5 cm. tall, with white inflorescences, and report it from white-sand savannas with open bare-ground areas and "abundant" or "ubiquitous in white-sand campinas", in both flower and fruit in June, September, and November. The Prance & al. 6017 collection, cited below, is a mixture with *Cyperus* sp. The Janssen 275, distributed as *P.*

*polytrichoides* var. *glaber*, actually is *Syngonanthus caulescens* (Poir.) Ruhl.

Additional citations: VENEZUELA: Amazonas: Maguire, Wurdack, & Bunting 37641 (W--2169002). Bolivar: Maguire, Steyermark, & Maguire 53599 (W--2514910). GUYANA: R. S. Cowan 39283 (W--2168847). SURINAM: W. W. Thomas 2382 (Ld). BRAZIL: Amazônas: Calderón, Monteiro, & Guedes 2582 (Ld, W--2931236); Prance, Coêlho, Maas, & Pinheiro 11662 (W--2801672), 11667 (W--2801676); Prance, Philcox, Rodrigues, Ramos, & Farias 5145 (W--2573077A); Prance, Ramos, Farias, Paula, & Albuquerque 10420 (W--2573052A); Prance, Ramos, Farias, & Philcox 4833 (W--2573084A), 4836 (W--2573081A). Pará: Daly, Campbell, Silva, Silva, Bahia, & Santos D.808 (N). Roraima: Prance, Forero, Wrigley, Ramos, & Farias 6017 in part (W--2573059A).

*PAEPALANTHUS POLYTRICHOIDES* f. *VILLOSUS* Mold.

Additional bibliography: Mold., Phytologia 37: 52. 1977; Mold., Phytol. Mem. 2: 124, 157, & 617. 1980.

Additional citations: BRAZIL: Amapá: Black 49-8245 (W--2252936).

*PAEPALANTHUS PRAEDENSATUS* Alv. Silv.

Additional bibliography: Mold., Phytologia 30: 320. 1975; Mold., Phytol. Mem. 2: 157, 424, & 617. 1980.

Additional citations: MOUNTED ILLUSTRATIONS & CLIPPINGS: Alv. Silv., Fl. Mont. 1: 120--121, pl. 75 II. 1928 (Ld, N, W).

*PAEPALANTHUS PRAEMORSUS* Ruhl.

Additional bibliography: Mold., Phytologia 30: 320--321 (1975) and 35: 114. 1977; Mold., Phytol. Mem. 2: 157, 426, & 617. 1980.

*PAEPALANTHUS PRUINOSUS* Ruhl.

Additional bibliography: Mold., Phytologia 30: 321. 1975; Mold., Phytol. Mem. 2: 157 & 617. 1980.

*PAEPALANTHUS PSEUDOELONGATUS* Ruhl.

Additional bibliography: Mold., Phytologia 30:321--322. 1975; Mold., Phytol. Mem. 2: 157 & 617. 1980.

*PAEPALANTHUS PSEUDOTORTILIS* Ruhl.

Additional bibliography: Mold., Phytologia 35: 30 (1976) and 35: 359. 1977; Mold., Phytol. Mem. 2: 157 & 617. 1980.

*PAEPALANTHUS PUBESCENS* Körn.

Additional bibliography: Mold., Phytologia 30: 322--323. 1975; Mold., Phytol. Mem. 2: 157 & 617. 1980.

*PAEPALANTHUS PUBESCENS* var. *CHAPADENSIS* Ruhl.

Additional bibliography: Mold., Phytologia 30: 323--324. 1975; Mold., Phytol. Mem. 2: 157 & 617. 1980.

*PAEPALANTHUS PUBESCENS* var. *LONGEPILOSUM* Alv. Silv.

Additional bibliography: Mold., Phytologia 30: 324. 1975; Mold.,

Phytol. Mem. 2: 157 & 617. 1980.

Additional citations: MOUNTED CLIPPINGS: Alv. Silv., Fl. Mont. 1: 56. 1928 (Ld, N, W).

*PAEPALANTHUS PULCHELLUS* Herzog

Additional bibliography: Mold., Phytologia 30: 324--325. 1975; Mold., Phytol. Mem. 2: 158 & 617. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 75. 1980; Mold., Phytologia 51: 244--245. 1982.

Recent collectors describe this plant as having dull-green leaves and brown involucral bractlets under white florets. They have encountered it on bare stony ground subject to periodic flooding in a region of "sandstone, metamorphic and quartzite rock outcrops with associated marsh, damp flushes, and grassland, some cutover mixed deciduous woodland by streams and cerrado", as well as on natural campo, in restinga, and "locally common" in moist depressions of campo rupestre, at 1500--1600 m. altitude, in both flower and fruit in March, June, and August. The Mori & al. 11924 collection, cited below, was photographed in situ by the collectors.

Additional citations: BRAZIL: Bahia: Harley, Mayo, Storr, Santos & Pinheiro in Harley 19643 (Ld, N, W--2936308); Mori & Dom 14348 (Ld, N); Mori, Carvalho, Mattos Silva, Santos, & Ribeiro 11924 (Ld), 11937 (Ld, N).

*PAEPALANTHUS PULCHELLUS* var. *PUBERULENTUS* Mold., Phytologia 51: 244--245. 1982.

Bibliography: Mold., Phytologia 51: 244--245 (1982) and 52: 122. 1982.

Citations: BRAZIL: Goias: Hatschbach 43162 (Ld--type, W--2931979--isotype).

*PAEPALANTHUS PULLUS* Körn.

Additional bibliography: Mold., Phytologia 42: 31--32. 1979; Mold., Phytol. Mem. 2: 158 & 617. 1980; Mold., Phytologia 54: 237. 1983.

Additional citations: BRAZIL: Para: Secco 224 (Ld).

*PAEPALANTHUS PULLUS* var. *FLAVIDUS* Alv. Silv.

Additional bibliography: Mold., Phytologia 30: 325--327. 1975; Mold., Phytol. Mem. 2: 158 & 617. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., Fl. Mont. 1: 56. 1928 (Ld, N, W).

*PAEPALANTHUS PULLUS* var. *LATIFOLIUS* Alv. Silv.

Additional bibliography: Mold., Phytologia 30: 326 & 327. 1975; Mold., Phytol. Mem. 2: 158 & 617. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., Fl. Mont. 1: 56. 1928 (Ld, N, W).

*PAEPALANTHUS PULLUS* var. *LONGEPILOSUS* Alv. Silv.

Additional bibliography: Mold., Phytologia 30: 326—327. 1975; Mold., Phytol. Mem. 2: 158 & 617. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., Fl. Mont. 1: 56. 1928 (Ld, N, W).

*PAEPALANTHUS PULLUS* var. *RAMOSUS* Alv. Silv.

Additional bibliography: Mold., Phytologia 30: 327. 1975; Mold., Phytol. Mem. 2: 158 & 617. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., Fl. Mont. 1: 56. 1928 (Ld, N, W).

*PAEPALANTHUS PULVINATUS* N. E. Br.

Additional bibliography: Mold., Phytologia 42: 32. 1979; Mold., Phytol. Mem. 2: 208 & 618. 1980.

*PAEPALANTHUS PUNGENS* Griseb.

Additional bibliography: Mold., Phytologia 37: 52. 1977; Mold., Phytol. Mem. 2: 90 & 618. 1980.

Additional citations: CUBA: Oriente: C. Wright 3233 (E--2058232—isotype).

*PAEPALANTHUS PUNGENS* var. *BREVIFOLIUS* Mold.

Additional bibliography: Mold., Phytologia 37: 52. 1977; Mold., Phytol. Mem. 2: 90 & 618. 1980.

*PAEPALANTHUS RAMOSISSIMUS* Alv. Silv.

Additional bibliography: Mold., Phytologia 30: 328—329. 1975; Mold., Phytol. Mem. 2: 158 & 618. 1980.

Citations: MOUNTED ILLUSTRATIONS & CLIPPINGS: Alv. Silv., Fl. Mont. 1: 209—210, pl. 138. 1928 (Ld, N, W).

*PAEPALANTHUS RAMOSUS* (Wikstr.) Kunth

Additional bibliography: Mold., Phytologia 42: 32. 1979; Mold., Phytol. Mem. 2: 158, 369, 397, 398, 400, 402, 404, 424, 427, & 618. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 75. 1980.

Recent collectors have encountered this plant in sandy soil of restingas, campos, and campo rupestre, mostly in wet spots, at 1050 m. altitude, describing the flowers as white in May.

Material has been misidentified and distributed in some herbaria as *P. sychnophyllum* Ruhl.

Additional citations: BRAZIL: Bahia: Carvalho, Mori, & Boom 713 (N); Harley, Mayo, Storr, Santos, & Pinheiro in Harley 18085 (Ld, N); Lanna 754 [Castellanos 25504] (Fe--6047); Mori, Mattoz Silva, Kallunki, Santos, & Pereira dos Santos 9682 (N); Minas Gerais: Hatschbach 42873 (Ld). Rio de Janeiro: Araujo 1788 (Fe--13246); Freire V.66 [Silva 66; Herb. FEFMA 18589] (Ld); Lira 201 [Rocha 139; Herb. FEFMA 17469] (Ld); Maas & Caraauta 3142 (Ld); Silva & Alves 63 [Herb. FEFMA 18364] (Ld); Sucre, Graziela, & Ichaso s.n. [Herb. Jard. Bot. Rio Jan. 175198] (W--2928658); Viana 552 [Herb. Jard. Bot. Rio Jan. 162079] (W--

2928657). MOUNTED ILLUSTRATIONS: Schnitzl., Icon. 1: 46, fig. 4. 1845 (Ba--381099).

*PAEPALANTHUS RAMOSUS* var. *AFFINIS* (Bong.) Ruhl.

Additional bibliography: Mold., Phytologia 42: 32. 1979; Mold., Phytol. Mem. 2: 158, 369, 397, 400, 404, 424, & 618. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 75. 1980.

Recent collectors describe this plant as a wiry, erect, branched herb or subshrub or as a "rosette plant with rather woody stems", 20--80 cm. tall, "with monocarpic basal rosettes and monocarpic shoots", with a stout base, the stems branched, erect, flowering, the leaves rather bright-green or mid-green, the flowering stems woody, the involucral bractlets brown or dark-brown, and the flower-heads and florets white or cream-color. They have found it growing on damp sand in open restinga in a region of "mixed restinga with high forest, bushy areas, damp open ground, and marshes", on stony ground in damp grassland in regions of "sandstone, metamorphic and quartzite rock outcrops with associated marsh, damp flushes and grassland and some cutover mixed deciduous woodland by streams and cerrado", in dry places and sandy soil on campos, and in an area of "sandstone rocks and open scrub on rocky hillsides", from sealevel to 1600 m. altitude, in flower in February, March, and May to July, and in fruit in February and May. Mori and his associates refer to it as "common on campo rupestre".

The Clausen 3, cited below, was previously cited as typical *P. ramosus* (Wikstr.) Kunth.

Additional citations: BRAZIL: Bahia: Carvalho, Mori, & Boom 713 (Ld); Hage & Santos 848 (Ld); Harley, Mayo, Storr, Santos, & Pinheiro in Harley 17999 (Ld, N), 18755 (Ld, N), 19605 (Ld, N), 19781 (Ld, N); Lanna Sobrinho 1437 [Herb. Brad. 60604] (Eu--37659); Mori, King, Santos, & Hage 12519 (Ld, W--2854271); Mori, Walther, & Necker 12792 (Ld, N). Minas Gerais: *P. Clausen* 3 (Br, Br, Ml, Mu, N, Qu). MOUNTED CLIPPINGS: Kunth, Enum. Pl. 3: 572. 1841 (W).

*PAEPALANTHUS REFLEXUS* Alv. Silv.

Additional bibliography: Mold., Phytologia 30: 334--335. 1975; Mold., Phytol. Mem. 2: 158 & 618. 1980.

Citations: MOUNTED ILLUSTRATIONS & CLIPPINGS: Alv. Silv., Fl. Mont. 1: 157 + 158, pl. 99. 1928 (Ld, N, W).

*PAEPALANTHUS REFRACTIFOLIUS* Alv. Silv.

Additional bibliography: Mold., Phytologia 33: 57--58. 1976; Mold., Phytol. Mem. 2: 158 & 618. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 75. 1980.

Recent collectors describe this plant as an erect herb, to 40 cm. tall, the involucral bractlets brown, and the florets white. They have found it growing among long grass in marshes in a region of "sandstone, conglomerate, metamorphic and quartzite rock outcrops with associated scrubby vegetation with damp flushes, grassland and marsh in some areas", at 1600--1850 m. altitude, flowering and fruiting in March.

Additional citations: BRAZIL: Bahia: Harley, Mayo, Storr, Santos, & Pinheiro in Harley 19724 (Id, N, W--2936317); Harley, Renvoize, Erskine, Brighton, & Pinheiro in Harley 15473 (W--2771330). MOUNTED ILLUSTRATIONS & CLIPPINGS: Alv. Silv., Fl. Mont. 1: 171--172, pl. 110. 1928 (Id, N, W).

*PAEPALANTHUS REGALIS* Mart.

Additional bibliography: Mold., Phytologia 42: 32. 1979; Mold., Phytol. Mem. 2: 158, 427, & 618. 1980.

Recent collectors have encountered this plant in campo rupestre on exposed slopes, at 1000 m. altitude. in both flower and fruit in June.

Additional citations: BRAZIL: Bahia: Mori & Boom 14447 (Id, N). Miras Gerais: Maguire, Mendes Magalhães, & Maguire 49265 (W--2435326).

*PAEPALANTHUS REGALIS* var. *RECURVUS* Alv. Silv.

Additional bibliography: Mold., Phytologia 30: 336. 1975; Mold., Phytol. Mem. 2: 158, 427, & 618. 1980.

Citations: MOUNTED ILLUSTRATIONS & CLIPPINGS: Alv. Silv., Fl. Mont. 1: 55, pl. 31 & 32. 1928 (Id, N, W).

*PAEPALANTHUS REGEIANUS* Körn.

Additional bibliography: Mold., Phytologia 30: 336--337. 1975; Mold., Phytol. Mem. 2: 158 & 618. 1980.

*PAEPALANTHUS REPENS* (Lam.) Körn.

Additional & emended bibliography: Bong., Mem. Acad. Sci. St. Petersb., ser. 6, 1: 623--624, pl. 7. 1831; Fedde & Schust., Justs Bot. Jahresber. 40 (2): 15. 1914; Mold.. Phytologia 42: 32. 1979; Monteiro, Giulietti, Mazzoni, & Castro, Bol. Bot. Univ. S. Paulo 7: 44. 1979; Mold., Phytol. Mem. 2: 96, 425, 428, & 618. 1980.

Bongard (1831) lists this species from the Serra da Piedade in Brazil, but this must surely be a misidentification. He himself expresses a question about the determination, noting "Propter nimis brevem cel. Lamarckii descriptionem difficiliter determinanda species. Nostra planta bene convenit et cum iconе et cum descriptione citata, sed recedit pedunculis et vaginis brevioribus. Priores in specimine Lamarckiano dicintur 5--6 pollicares et vagina pollicem longa; haec organa autem dimidium breviora in speciminibus Brasiliensibus." Steudel (1855) ascribes it to "Ins. Borbonia" [=Mauritius].

Additional citations: HISPANIOLA: Dominican Republic: Eggers 2216 (W--937200); A, H. Lécier 13144 (W--2801675); Fürckheim 3327 (E--2058756, Id--photo, W--695701). MOUNTED ILLUSTRATIONS & CLIPPINGS: Lam., Encycl. Meth. Bot. 1: pl. 50, fig. 2. 1791 (Id); Mold., N. Am. Fl. 19: 42. 1937 (W); Ruhl. in Urb., Symb. Antill. 7: 173. 1912 (W).

*PAEPALANTHUS RESTINGENSIS* Mold.

Additional bibliography: Mold., Phytologia 30: 339. 1975; Mold., Phytol. Mem. 2: 158 & 618. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 75. 1980.

Recent collectors have encountered this plant on sandy campo with restinga, on exposed coastal dunes, and in "open areas on usually wet white sand" in a region of "mixed restinga vegetation on sand, with high forest, low trees and shrubs, and sedge meadows [brejo] with open wet areas on white sand", from sealevel to 50 m. altitude, flowering and fruiting in February and April.

Additional citations: BRAZIL: Bahia: Carvalho & Lewis 1097 (Ld); Harley, Mayo, Storr, Santos, & Pinheiro in Harley 18527 (Ld, N, W--2936329).

**PAEPALANTHUS RETUSUS** C. Wright

Additional bibliography: Mold., Phytologia 37: 53. 1977; Mold., Phytol. Mem. 2: 90, 427, & 618. 1980.

Additional citations: CUBA: Pinar del Rio: Ekman 12806 (E--1006766); C. Wright 3744 (W--46430--isotype).

**PAEPALANTHUS RHIZOCEPHALUS** Alv. Silv.

Additional bibliography: Mold., Phytologia 33: 58. 1976; Mold., Phytol. Mem. 2: 158 & 618. 1980.

Additional citations: BRAZIL: Goiás: W. R. Anderson 8188 (W--2755389). MOUNTED ILLUSTRATIONS & CLIPPINGS: Alv. Silv., Fl. Mont. 1: 126--127, pl. 78. 1928 (Ld, N, W).

**PAEPALANTHUS RHIZOMATOSUS** Alv. Silv.

Additional bibliography: Mold., Phytologia 30: 340--341. 1975; Mold., Phytol. Mem. 2: 158 & 618. 1980.

Citations: MOUNTED ILLUSTRATIONS & CLIPPINGS: Alv. Silv., Fl. Mont. 1: 148--149, pl. 92. 1928 (Ld, N, W).

**PAEPALANTHUS RIEDELIANUS** (Bong.) Körn.

Additional synonymy: *Paepalanthus riedelianus* (Bong.) Ruhl. ex Mold., Phytologia 54: 243 in syn. 1983.

Additional bibliography: Mold., Phytologia 30: 341--342. 1975; C. D. Cook in Heywood, Flow. Pl. World 281, fig. 3. 1978; Mold., Phytol. Mem. 2: 158 & 618. 1980; Mold., Phytologia 54: 243. 1983.

Additional illustrations: C. D. Cook in Heywood, Flow. Pl. World 281, fig. 3. 1978.

Additional citations: MOUNTED CLIPPINGS: Bong., Ess. Monog. Erioc. 30. 1831 (N, W); Kunth, Enum. Pl. 3: 500--501 & 575. 1841 (N, W).

**PAEPALANTHUS RIGIDIFOLIUS** Alv. Silv.

Additional bibliography: Mold., Phytologia 30: 342--343. 1975; Mold., Phytol. Mem. 2: 158 & 618. 1980.

Citations: MOUNTED ILLUSTRATIONS & CLIPPINGS: Alv. Silv., Fl. Mont. 1: 66--67, pl. 38. 1928 (Ld, N, W).

**PAEPALANTHUS RIGIDULUS** Mart.

Additional bibliography: Mold., Phytologia 33: 130 & 187 (1976) and 35: 263 & 279. 1977; Mold., Phytol. Mem. 2: 158 & 618. 1980.

Additional citations: MOUNTED CLIPPINGS: Kunth, Enum. Pl. 3: 510 (N, W).

**PAEPALANTHUS RIGIDUS (Bong.) Kunth**

Additional synonymy: *Paepalanthus rigidus* (Bong.) Ruhl. ex Mold., Phytologia 54: 243 in syn. 1983.

Additional & emended bibliography: Bong., Mem. Acad. Imp. Sci. St. Petersb., ser. 6, 1: 621--622. 1831; Mold., Phytologia 33: 130--131 & 191. 1976; Mold., Phytol. Mem. 2: 158 & 618. 1980; Mold., Phytologia 54: 243. 1983.

Additional citations: MOUNTED CLIPPINGS: Bong., Ess. Monog. Erioc. 21--22. 1831 (N, W).

**PAEPALANTHUS RIPARIUS Mold.**

Additional bibliography: Mold., Phytologia 37: 53. 1977; Mold., Phytol. Mem. 2: 90 & 618. 1980.

Additional citations: MOUNTED CLIPPINGS: Mold., N. Am. Fl. 19: 42--43. 1937 (N, W).

**PAEPALANTHUS ROBUSTUS Alv. Silv.**

Additional bibliography: Mold., Phytologia 33: 132 & 191. 1976; Mold., Phytol. Mem. 2: 158 & 618. 1980.

Additional citations: BRAZIL: Minas Gerais: Irwin, Maxwell, & Wasshausen 20532 (W--2598440). MOUNTED ILLUSTRATIONS & CLIPPINGS: Alv. Silv., Fl. Serr. Min. 53. 1928 (W); Alv. Silv., Fl. Mont. 1: 194--195, pl. 128. 1928 (Ld, N, W).

**PAEPALANTHUS RORAIMENSIS Mold.**

Additional bibliography: Mold., Phytologia 33: 132--133. 1976; Mold., Phytol. Mem. 2: 118, 122, & 618. 1980; Mold., Phytologia 50: 245. 1982.

Recent collectors refer to this plant as an herb to 50 cm. tall, with grayish-white inflorescence heads, locally frequent at the edges of morichal, in both flower and fruit in February and June.

Additional citations: VENEZUELA: Amazonas: C. Huber 3840 (Ld). Bolívar: B. Maguire 33383 (W--2168908); Steyermark, Brewer-Carias, & Liesner 124310 (N).

**PAEPALANTHUS RUFESCENS Alv. Silv.**

Additional bibliography: Mold., Phytologia 33: 133. 1976; Mold., Phytol. Mem. 2: 158 & 618. 1980.

Citations: MOUNTED ILLUSTRATIONS & CLIPPINGS: Alv. Silv., Fl. Mont. 1: 104--106, pl. 57 (2) & 65. 1928 (Ld, N, W).

**PAEPALANTHUS RUFICEPS Ruhl.**

Additional bibliography: Mold., Phytologia 33: 133--134. 1976; Mold., Phytol. Mem. 2: 158, 427, & 618. 1980.

**PAEPALANTHUS RUFO-ALBUS Alv. Silv.**

Additional bibliography: Mold., Phytologia 33: 134. 1976; Mold.,

Phytol. Mem. 2: 158 & 618. 1980.

Citations: MOUNTED ILLUSTRATIONS & CLIPPINGS: Alv. Silv., Fl. Mont. 1: 94--96, pl. 60 & 61. 1928 (Ld, N, W).

*PAEPALANTHUS SALTICOLA* Herzog

Additional bibliography: Mold., Phytologia 33: 134--135 (1976) and 35: 120. 1977; Mold., Phytol. Mem. 2: 158 & 618. 1980.

Recent collectors describe this species as an herb, 15 cm. tall, the leaves mid-green, and the heads ashen-gray. They have found it growing in sandy clay soil and in open scrub on white sand with damp areas and extensive sedge meadows (*brejo*) partly burned over and forming "uma densa almofada em lugar úmedo" in restinga and natural campo, at 950 m. altitude, in flower in June and in both flower and fruit in February.

Additional citations: BRAZIL: Bahia: Harley, Mayo, Storr, Santos, & Pinheiro in Harley 18843a (N); Mattos Silva & Brito 899 (Ld); Mori, Carvalho, Mattos Silva, Santos, & Ribeiro 11977 (Ld, N).

*PAEPALANTHUS SAVANNARUM* (Mold.) Mold., Phytologia 49: 213. 1981.

Synonymy: *Syngonanthus savannarum* Mold., Phytologia 2: 352 & 381, nom. nud. 1947; Mold. in Maguire & al., Bull. Torrey Bot. Club 75: 202. 1948.

Bibliography: Mold., Phytologia 2: 352 & 381. 1947; Mold. in Maguire & al., Bull. Torrey Bot. Club 75: 202. 1948; Mold., Alph. List Cit. 3: 701 & 894 (1949) and 4: 1166. 1949; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 67 & 214. 1949; Mold., Phytologia 4: 330. 1953; E. J. Salisb., Ind. Kew. Suppl. 11: 244. 1953; Mold., Résumé 74, 76, & 493. 1959; Mold., Résumé Suppl. 1: 5. 1959; Hocking, Excerpt. Bot. A.4: 593. 1962; Mold., Fifth Summ. 1: 128 & 131 (1971) and 2: 965. 1971; Mold., Phytologia 33: 51 & 273 (1976) and 38: 35--37. 1977; Mold., Biol. Abstr. 65: 3719. 1978; Mold., Phytol. Mem. 2: 120, 123, & 625. 1980; Mold., Phytologia 49: 293. 1981; Hocking, Excerpt. Bot. A.39: 101. 1982; Mold., Phytologia 50: 245, 246, 264, & 270. 1982.

Recent collectors describe this plant as a small herb forming dense cushions on white sand savannas and have found it growing in open rocky sandstone areas bordering wet savannas, at 1300 m. altitude, in both flower and fruit in November and December.

Additional & emended citations: VENEZUELA: Bolívar: B. Maguire 33729 (W--2168915); J. A. Steyermark 93759 (Ld, W--2584303); Steyermark & Pruski 121064 (Ld). GUYANA: Maas, Westra, & al. 4361 (Ld, N); Maguire, Bagshaw, & Maguire 40763 (W--2169082); Maguire & Fanshawe 23280 (W--1907829--isotype); Maguire, Tillett, & Tillett 43843 (Ba, Ld, N).

*PAEPALANTHUS SAVANNARUM* var. *GLABRESCENS* (Mold.) Mold., Phytologia 49: 293. 1981.

Synonymy: *Syngonanthus savannarum* var. *glabrescens* Mold. in Maguire & Wurdack, Mem. N. Y. Bot. Gard. 9: 412. 1957. *Syngonanthus savannarum* f. *glabrescens* Mold., Phytologia 38: 36 sphalm. 1977.

Bibliography: Mold. in Maguire & Wurdack, Mem. N. Y. Bot. Gard. 9: 412. 1957; Mold., Résumé 74 & 493. 1959; Mold., Résumé Suppl. 11: 4. 1964; Mold., Fifth Summ. 1: 128 (1971) and 2: 965. 1971; Mold., Phytologia 33: 51 (1976) and 38: 36--37. 1977; Mold., Phytol. Mem. 2: 118 & 120. 1980; Mold., Phytologia 49: 293. 1981; Hocking, Excerpt. Bot. A.39: 101. 1982; Mold., Phytologia 50: 245, 246, 264, & 270. 1982.

Recent collectors describe this plant as growing to 10 cm. tall, with gray inflorescence heads, "formando pequeños cojines en la pared encima del salto", growing as well in white sandy parts of savannas, where it is said to be "frequent", at 1000--2000 m. altitude, in both flower and fruit from December to February. Davidse found it on open savannas with *Trachypogon*, *Echinolaena* and *Paspalum* dominant and with a narrow zone of gallery forest along the rivers, the soil with the top 20 cm. sand and organic material mixture, then 1 m. of white sand, below which is yellow sand. His no. 4681, cited below, was previously incorrectly cited as *P. steyermarkii* Mold.

Additional & emended citations: VENEZUELA: Amazonas: O. Huber 1591 (Ld); Huber & Tillett 2765 (Ld), 2793 (Ld); Wurdack & Adderley 42874 (N, S, W--2320883). Bolívar: Davidse 4681 (N); Huber & Steyermark 6940 (Ld); Ruiz-Teran & López-Palacios 11217; Steyermark, Huber, & Carreno E. 128220a (Ld); Steyermark & Wurdack 331 (N, W--2168504, W--2407789), 539 (N-type, W--2168516--isotype).

#### *PAEPALANTHUS SAXATILIS* (Bong.) Körn.

Additional synonymy: *Paepalanthus saxatilis* (Bong.) Ruhl. ex Mold., Phytologia 54: 243 in syn. 1983.

Additional bibliography: Mold., Phytologia 33: 135--136 & 188. 1976; Mold., Phytol. Mem. 2: 158 & 618. 1980; Mold., Phytologia 54: 243. 1983.

Additional citations: MOUNTED CLIPPINGS: Bong., Ess. Monog. Erioc. 25. 1831 (N, W).

#### *PAEPALANTHUS SAXICOLA* Körn.

Additional bibliography: Mold., Biol. Abstr. 63: 6590. 1977; Mold., Phytologia 37: 53 & 84 (1977) and 42: 32 & 38. 1979; Mold., Phytol. Mem. 2: 110, 118, 158, & 618. 1980; Mold., Phytologia 50: 245 (1982) and 54: 237 & 243. 1983.

Recent collectors refer to this plant as growing 5 cm. tall, and found it in both flower and fruit in September.

Additional citations: VENEZUELA: Amazonas: Huber, Medina, & Clark 5676 (Ld). BRAZIL: Mato Grosso: Maciel, Teixeira, & al. 26 [Herb. FEEMA.23321] (Fe).

#### *PAEPALANTHUS SAXICOLA* var. *CONICUS* Mold.

Additional bibliography: Mold., Phytologia 42: 32 & 38. 1979; Mold., Phytol. Mem. 2: 110, 118, & 618. 1980; Mold., Phytologia 50: 245. 1982.

Recent collectors describe this plant as a frequent diminutive

herb with "blanco-plateadas" inflorescence heads, and have found it growing in open wet areas, in shallow depressions in open sandy areas in 2 cm. of standing water on bana (white sand areas with shrubs and small trees), and in wet ground along streams at the base of *Mauritia* palms, at 120--200 m. altitude, in fruit in February and both in flower and fruit in April and August. They report the vernacular name, "yuwije".

Additional citations: COLOMBIA: Guainia: Liesner & Clark 9122 (Ld). Vaupés: Schultes, Baker, & Cabrera 17987 (W--2198899); Schultes & Cabrera 17586 (W--2198899). VENEZUELA: Amazonas: H. I. Clark 6638 (N); O. Huber 2346 (Ld); Liesner 6893 (Ld), 6928 (Ld); J. A. Steyermark 57848 (N, W--1901746).

*PAEPALANTHUS SAXICOLA* var. *PILOSUS* Mold.

Additional bibliography: Mold., Biol. Abstr. 63: 6590. 1977; Mold., Phytologia 37: 53. 1977; Mold., Phytol. Mem. 2: 158 & 618. 1980.

*PAEPALANTHUS SCANDENS* Ruhl.

Additional synonymy: *Papaelanthus scandens* Ruhl. ex Domin, Ann. Jard. Bot. Buitenz. 24 [ser. 2, 9]: 247 sphalm. 1911.

Additional bibliography: Domin, Ann. Jard. Bot. Buitenz. 24 [ser. 2, 9]: 247. 1911; Mold., Phytologia 42: 32--33 (1979) and 45: 270. 1980; Mold., Phytol. Mem. 2: 158, 429, & 618. 1980.

Additional citations: BRAZIL: Distrito Federal: Filgueiras 894 (W--2941383); Héringer, Maguire, Murça Pires, Maguire, & Silva 56190 (W--2514874); Héringer, Paula, Mendonga, & Salles 48 (N). Goiás: Irwin, Harley, & Smith 32762 (W--2709584); Irwin, Santos, Souza, & Fonsêca 24248 (W--2582549A).

*PAEPALANTHUS SCANDENS* var. *ALMASENSIS* Mold., Phytologia 45: 270. 1980.

Bibliography: Mold., Phytologia 45: 270. 1980; Mold., Phytol. Mem. 2: 158 & 618. 1980.

Mori and his associates refer to this plant as common on campo rupestre, at 1300--1600 m. altitude, and found it in both flower and fruit in July.

Citations: BRAZIL: Bahia: Harley, Mayo, Storr, Santos, & Pinheiro in Harley 19725 (Ld--isotype, N--isotype, Ub--type, W--2936316--isotype); Mori, King, Santos, & Hage 12539 (Ld, W--2854275).

*PAEPALANTHUS SCHENCKII* V. A. Pouls.

Additional bibliography: Mold., Phytologia 35: 31. 1976; Mold., Phytol. Mem. 2: 158, 427, & 618. 1980.

*PAEPALANTHUS SCHLIMII* Körn.

Additional bibliography: Mold., Phytologia 33: 141--142. 1976; Mold., Phytol. Mem. 2: 110, 118, & 618. 1980.

*PAEPALANTHUS SCHOLIOPHYLLUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 33: 142. 1976; Mold., *Phytol. Mem.* 2: 158 & 618. 1980; Mold., *Phytologia* 50: 248. 1982.

Mori and Benton found this plant growing on campo rupestre, at 1000--1200 m. altitude, in flower in December.

Additional citations: BRAZIL: Bahia: Mori 12896 (Ld, N); Mori & Benton 13210 (Ld, N). Goiás: Glaziou 22302 [U. S. Nat. Herb. photo 5888] (W—photo).

*PAEPALANTHUS SCHOMBURGKII* Klotzsch

Additional bibliography: Knuth, *Feddes Repert. Spec. Nov. Beih.* 43: [Init. Fl. Venez.] 180. 1927; Mold., *Phytologia* 33: 133 & 142--143 (1976) and 37: 258 & 259. 1977; Mold., *Phytol. Mem.* 2: 118, 122, & 618. 1980.

Knuth (1927) cites *ImThurn* 33 and *Schomburgk s.n.* from Roraima, Venezuela.

Additional citations: MOUNTED CLIPPINGS: Klotzsch in Schomb., *Faun. Fl. Brit. Guian.* 1064. 1848 (N, W).

*PAEPALANTHUS SCHUECHIANUS* Körn.

Additional bibliography: Mold., *Phytologia* 35: 31. 1976; Mold., *Phytol. Mem.* 2: 158, 398, 427, & 618. 1980.

*PAEPALANTHUS SCHULTESII* Mold.

Additional bibliography: Mold., *Phytologia* 33: 144—145. 1976; Mold., *Phytol. Mem.* 2: 110 & 618. 1980.

Additional citations: COLOMBIA: Cundinamarca: Killip 34090 (W—1770936). Norte de Santander: Fosberg 19185 (W—2108104).

*PAEPALANTHUS SCHWACKEANUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 33: 145—146 (1976) and 35: 254. 1977; Mold., *Phytol. Mem.* 2: 158, 427, & 618. 1980.

*PAEPALANTHUS SCHWACKEANUS* var. *GLABRESCENS* Alv. Silv.

Additional bibliography: Mold., *Phytologia* 33: 145—146. 1976; Mold., *Phytol. Mem.* 2: 158 & 618. 1980.

Citations: MOUNTED CLIPPINGS: Alv. Silv., *Fl. Mont.* 1: 224. 1928 (Ld, N, W).

*PAEPALANTHUS SCIRPEUS* Mart.

This taxon is now known as *Blastocalon scirpeum* (Mart.) Giul., which see.

*PAEPALANTHUS SCLERANTHUS* Ruhl.

Additional bibliography: Mold., *Phytologia* 33: 147—148. 1976; Monteiro, Giulietti, Mazzoni, & Castro, *Bol. Bot. Univ. S. Paulo* 7: [43], 45, 46, 52, & 57, fig. 45—50. 1979; Mold., *Phytol. Mem.* 2: 158 & 618. 1980.

Additional illustrations: Monteiro, Giulietti, Mazzoni, & Castro, *Bol. Bot. Univ. S. Paulo* 7: 57. 1979. [to be continued]